

**REFLECTOR ANTENNA SYSTEM INCLUDING A PHASED ARRAY ANTENNA
HAVING A FEED-THROUGH ZONE AND RELATED METHODS**

Abstract of the Disclosure

A reflector antenna system may include at least one antenna reflector having an arcuate shape and defining an antenna beam, and a phased array antenna positioned in the antenna beam. More particularly, the phased array antenna may include a substrate and a plurality of back-to-back pairs of first antenna elements carried by the substrate and configured for defining at least one feed-through zone for the antenna beam. Moreover, the phased array antenna may further include a plurality of second antenna elements carried by the substrate and defining at least one active zone for the antenna beam.